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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,656	03/13/2001	Eric Lawrence Upton	004524.P031	2867

7590

06/17/2004

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EXAMINER
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NGUYEN, CHAU M.

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 06/17/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/805,656

Applicant(s)

UPTON, ERIC LAWRENCE

Examiner

Chau M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on April 15, 2004.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

2. Claims 15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iriyama et al (hereinafter "Iriyama") (U.S. Pat. No. 6,175,451 B1) in view of Cato (U.S. Pat. No. 6,175,451 B1).

As claim 15, Iriyama discloses a free-space optical communication system comprising:

- an optical transceiver (fig. 4) (col. 5, lines 10-20) ;
- a set of transceiver optics (such as 11, 12, 52) and electronics (such as 16, 53) for transmitting and receiving an optical signal; and
- a multi-axis positioning mechanism (50) mounted to base and coupled to the set of transceivers optics and electronics for controlling an orientation of the set of transceiver optics and electronics such that outgoing optical signals emitting from each transceiver are directed toward the other transceiver so as to enable bi-directional communication between the first and second optical transceivers (Abstract).

Iriyama does not clearly show a second optical transceiver. However, it is obvious to exist another transceiver at the other end in order to the tele-communication can be

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established. The system of Iriyama still differs from the present invention in that he does not show the transmitter to be mounted to a window in a building. However, in view of Cato, a transmitter for free-space communication can be mounted to a window of building (Cato, col. 1, lines 32-35). Therefore, it would have been obvious to one having ordinary skill in the art to mount a transceiver to a window of a building as mentioned by Cato in order to transmit and receive signal in free-space. One would have motivated for doing this since this mounting location produces better transmission and reception.

3. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iriyama (U.S. Pat. No. 6,175,451 B1) in view of Cato (U.S. Pat. No. 6,175,451 B1) as applied in the claim 15, and in further view of Carlson et al. (Hereinafter "Carlson") (U.S. Pat. No. 6,285,476 B1).

As claim 17, the combination system of Iriyama and Cato, as described above does not clearly show the transceiver optics including a Cassegrain collector. However, Carlson discloses a Cassegrain collector in associated with free space communication and window mounted (Carlson, Abstract and col. 14, lines 5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a Cassegrain collector as taught by Carlson into the combination system of Iriyama and Cato in order to receive an incoming light signal. One would have motivated for using Cassegrain collector with a cost-effective implementation for a wide band laser communication system (Carlson, col. 3, lines 31-33).

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Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iriyama (U.S. Pat. No. 6,175,451 B1) in view of Cato (U.S. Pat. No. 6,175,451 B1) as applied in the claim 15, and in further view of Miller (U.S. Pat. No. 6,069,909).

As claim 19, the combination of Iriyama and Cato as described above does not show transceiver to be mounted to a window using vacuum. However, Miller discloses the use of a pump for removing the gas from window mount (Miller, col. 3, lines 7-9). Miller does not clearly show a transceiver to be mounted, but he is intended to use the vacuum effects to mount an object to the window. Therefore, it would have been obvious to one having ordinary skill in the art to associate vacuum to mount an object (such as transceiver) to a window as taught by Miller into the combination system of Iriyama and Cato in order to mount a transceiver to a window. One would have motivated for using vacuum is to provide the stability of the device without damaging to the glass of window.

As claim 20, although Iriyama and Cato do not specifically teach the vacuum pump type - low-volume piezoelectric vacuum pump - for maintaining the transceiver to be mounted to window. However, it would have been obvious to one having ordinary skill in the art to use any type of vacuum pump in order to provide the effect of vacuum to mount an object, such as transceiver, to window. This supporting is based on a recognition that the claimed difference exist not a result of an attempt by applicant to solve a problem but merely amounts to selection expedients known to one of ordinary skill as design choices.

***Claim Objection***

4. Claims 16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Allowable Subject Matter***

5. Claims 1-14 are allowed.

***Response to Arguments***

6. Applicant's arguments filed on April 06, 2004 have been fully considered but they are not persuasive.

7. The Applicant's arguments to claims 15, 19 and 20 are not persuasive:

For the 103 rejection of claim 15 based on Iriyama and Cato, Applicant mainly argued:

...first optical transceiver "mounted to a window in a building" and a second optical transceiver "mounted to a window in a second building".

However, Iriyama discloses a transceiver for performing the communication. It is inherently to exist another transceiver at the other site in order to the tele-communication can be established. In view of Cato, a transmitter can be mounted to a window (Cato, col. 1, lines 32-35). In addition, applicant can not show nonobviousness by attacking

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references individually where the rejections are based on combinations of references.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800

F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bloom et al. (U.S. Pat. No. 5,710,652) is cited to show laser communication transceiver and system.

Bloom (U.S. Pat. No. 6,104,513) is cited to show high bandwidth communication system for large building.

Bloom (U.S. Pat. No. 6,323,980 B1) is cited to show hybrid picocell communication system.

Holmes (U.S. Pat. No. 6,539,138) is cited to show system and method for switching optical signals through free space.

Szapiel (U.S. Pat. No. 6,268,944 B1) is cited to show free-space optical lasercom system.

Carlson et al. (U.S. Pat. No. 6,285,476 B1) is cited to show laser communication system and methods.

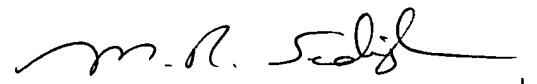
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau M. Nguyen whose telephone number is 703-305-8965. The examiner can normally be reached on Mon-Fri from 8:00 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703-305-4726. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

C.M.N.

Jun. 07, 2004

  
M.R. SEDIGHIAN  
Primary Examiner  
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